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Delivered Date: 10/17/2011 08:46 AM EST

Subject: Re: Solar BBQ grill

Hi Jacob,

I hadn't seen it - thanks. It looks cool, but I think the article is misleading.

If you used this grill in one of the best possible locations for solar energy, such as Uganda, the average solar insolation would be about 5 kWh/m2/day:

<http://solarelectricityhandbook.com/solar-irradiance.html>

The surface area of the solar collector on the grill looks less than a m2, but let's say it's 1 m2.

We know it takes about 1.5 kW of cooking power to bring 5L of water to boil in a reasonable amount of time.

It would be amazing if the total energy conversion efficiency was as high as 30%.

So a very optimistic calculation of cooking time (at 1.5 kW) would be:

$0.3 \times (5\text{kWh/m}^2/\text{day} \times 1\text{m}^2) / 1.5\text{kW} = 1 \text{ hour/day}$

I think it is possible that the device could store energy for up to 25 hours, but there is no way it could "allow cooking times for up to an amazing twenty-five hours at temperatures above 450 degrees Fahrenheit."

Regards,
Jim

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▼ Jacob Moss ---10/16/2011 11:18:39 PM---You guys ever see this? Someone just sent me a link here at home. No idea how much it would cost,

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Date: 10/16/2011 11:18 PM

Subject: Solar BBQ grill

You guys ever see this? Someone just sent me a link here at home. No idea how much it would cost, but as described it would solve some of the core user issues associated with

solar.

<http://inhabitat.com/wilson-solar-grill-stores-the-suns-energy-for-nighttime-fuel-free-grilling/>

<http://barbequelovers.com/grills/a-solar-grill-prototype-for-a-greener-tomorrow>